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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,312	12/21/2001	Matthew Philip Aubury	EMB1P074 (44359/08329)	8002

7590 07/27/2005

C. Douglas McDonald  
Carlton Fields, P.A.  
P. O. Box 3239  
Tampa, FL 33601-3239

EXAMINER
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OSBORNE, LUKE R

ART UNIT	PAPER NUMBER
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2123

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/026,312

Applicant(s)

AUBURY, MATTHEW PHILIP

Examiner

Luke Osborne

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/17/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Status***

1. Claims 1-15 are pending in the instant application.

Claims 1-15 stand rejected.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submission on 3/17/04 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Claim Objections***

3. Claims 2-5, 7-10, 12-15 are objected to because of the following informalities:  
Claim 2 as representative of the objected claims begins with "A method as recited in claim 1." The claim should read "The method as recited in claim 1" in order for the claim to be a proper dependent claim. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1-15 rejected under 35 U.S.C. 102(b) as being anticipated by Profiling in the ASP Codesign Environment by M. Parkinson and S. Parameswaran as provided by Applicant on an IDS submitted 3/17/04, hereafter "Parkinson."

Regarding claim 1, Parkinson discloses a method for profiling an executable hardware model. See Figure 2, 3, 4 and the corresponding portions of Parkinson's specification for this disclosure. In particular, Parkinson teaches "a method for profiling an executable hardware model, comprising the steps of:

(a) selecting a plurality of profiling functions of a profiling process [Page 2, Section 2, Profiling software];

(b) preprocessing an application having application functions targeted for implementation in reconfigurable logic for inserting calls to the profiling functions [Page 2, Section 2.2 Software tagging Software tagging consists of two stages, parsing and insertion];

(c) executing the application [Ten common benchmark programs were tested with the profiling tools which have been developed (Page 4, Section 4 Results)]; and

(d) generating a profile based on the profiling functions called during execution of the application [The charts of Figures 5 through 9 represent a comparison between the exact percentages, as calculated on the dedicated hardware, compared with the execution on a SPARC workstation, and a 68k based workstation (Page 5)]" as claimed.

Regarding claim 2, Parkinson teaches a method as recited in claim 1, "wherein the profile includes at least one of a time taken by each application function, a number of calls to each application function, and a call graph for illustrating calls between functions [The software techniques employed for profiling (the timing of coded sections, as well as procedure) were also test on the standard timing hardware of a workstation (Page 4, Section 4 Results)]" as claimed.

Regarding claim 3, Parkinson teaches a method as recited in claim 1, "wherein the profile includes at least one of dynamic control flow and memory transfers

[The aim of execution profiling is to build this dynamic model. For a statistically accurate model, the designer must ensure that any testing data is representative of the general data set the algorithm will encounter during normal operation. In this way, every branch within the algorithm may be exercised. An example of a typical piece of code containing a single entry point and multiple exit points, along with inserted profiling calls, is detailed in Figure 3.]" as claimed.

Regarding claim 4, Parkinson teaches a method as recited in claim 1, "wherein the application is permitted to interoperate with an arbitrary external library [The profiler merely requires a cross compilation to change the architecture under consideration (Page 3, Section 2.3)]" as claimed.

Regarding claim 5, Parkinson teaches a method as recited in claim 1, "wherein the application is written in a C programming language (Page 3, Figure3)" as claimed.

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Claims 6-10 recite the computer program product limitations of method claims 1-5, thus are rejected for the same reasons as claims 1-5.

Claims 11-15 recite the system logic for limitations of method claims 1-5, thus are rejected for the same reasons as claims 1-5.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO form 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke Osborne whose telephone number is (571) 272-4027. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

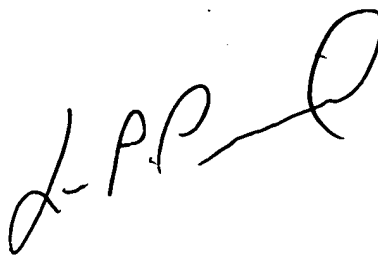
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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LRO

A handwritten signature in black ink, appearing to read "L. Picard", written diagonally across the page.

LEO PICARD  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100